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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,419	11/28/2001	Yulun Wang	155695-0244	2811

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EXAMINER

PHAM, THOMAS K

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 10/28/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,419

Applicant(s)

WANG ET AL.

Examiner

Thomas K Pham

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- ☐ Interview Summary (PTO-413) Paper No(s) _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

Notice to Applicant(s)

1. Claims 11-30 of U.S. Application 09/996419 filed on 11/28/2001 are presented for examination.

DETAILED ACTION

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: in the claimed for benefit under Title 35 U.S.C. Section 120 the application number is wrong as 08/481,962. The correct number should be 08/481,926.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 11,12,17,19,20,25,27 and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contained the phrase "world coordinate system" (see page 1 lines 6-7 and page 2 lines 11-13 of claims 11) which was not described in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 11-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Hibino et al.

U.S. Patent no. 5,060,632 (Hibino).

Regarding claims 11, 19 and 27

Hibino teaches

A system that allows a user to control a movement of an endoscope, the endoscope being located within an endoscope coordinate system that has a left-right axis and an up-down axis which are orthogonal to each other and to a longitudinal axis of the endoscope (col. 18 lines 58-65, "The controller 16 houses ... and a pump 22"), comprising:

- a first actuator located within a world coordinate system (col. 60 lines 38-40, "A bending actuator 615 ... on one frame 614");
- a second actuator that is coupled to said first actuator and located in the world coordinate system (col. 60 lines 41-43, "while another bending actuator ... on the other frame 614"), said first and second actuators being capable of moving the endoscope (col. 60 lines 43-48, "Because the pair ... omitted in this example");

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- an input device that can receive a command from the user to move the endoscope along the up-down axis in the endoscope coordinate system (col. 9 lines 61-64, “The bending switch control ... USM control circuits 22, 223”);
- a controller that receives the user command and transforms the movement of the endoscope in the endoscope coordinate system to a movement of the endoscope in the world coordinate system, and provides output signals to said first and second actuators to move the endoscope in the world coordinate system so that the endoscope moves along the up-down axis (col. 29 lines 41-54, “This controller 50 includes ... and a switch 11”).

Regarding claims 12 and 20

Hibino teaches

- a third actuator coupled to said second actuator and located within the world coordinate system (col. 81 lines 26-28, “A bending actuator 931 ... frame assembly 929”).

Regarding claims 13, 21 and 28

Hibino teaches

- an end effector that is coupled to said controller and spins the endoscope (col. 21 lines 31-39, “when the joy stick 9 ... outputs L in other cases.”).

Regarding claims 14 and 22

Hibino teaches

- input device is a foot pedal (col. 30 lines 62-65, “A foot switch 77 ... and suction, respectively”).

Regarding claims 15 and 23

Hibino teaches

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- first and second actuators include electric motors (col. 52 lines 49-55, "An endoscope apparatus ... vibration wave motor").

Regarding claims 16 and 24

Hibino teaches

- a first position sensor coupled to said first actuator and a second position sensor coupled to said second actuator (col. 51 lines 1-13, "a strain gauge 437 ... at a required value").

Regarding claims 17, 25 and 29

Hibino teaches

- the transformation between the endoscope coordinate system and the world coordinate system is performed in accordance with a plurality of transformation equations (col. 70 lines 28-33, "by applying arithmetic ... more directions is also possible").

Regarding claim 30

Hibino teaches the endoscope pivots about a pivot point formed at an incision of a patient (col. 46 lines 64-68, "a pivoting angle ... straightly viewing type").

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hibino in view of Glassman et al. U.S. Patent no. 5,086,401 (hereinafter Glassman).

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Regarding claims 18 and 26

Hibino teaches the system that allows a user to control a movement of an endoscope with the first and second actuators but does not teach a table that is coupled to said first and second actuators. However, Glassman teaches a table that is coupled to said first and second actuators (col. 3 lines 8-24, "a surgical robotic system 10 ... controlling microprocessor."). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the table base of Glassman with the actuators of Hibino because it would provide for stabilized the actuators during a surgery in order to achieve maximum accuracy in a surgical procedure.

Conclusion

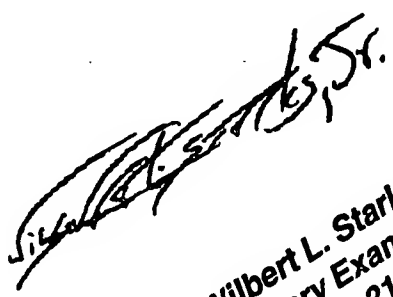
Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor *Mr. Anil Khatri* at (703) 305-0282.

Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th floor)**, or fax to the **official fax number (703) 872- 9306**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP
October 22, 2003


Wilbert L. Starks, Jr.
Primary Examiner
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